

### Abstract

[0046] A display controller provides luminance values to a display, where values for contrast and brightness for the display are constructed within a gamma correction mapping table. The display controller has an original gamma correction mapping table, a gamma correction transform circuit and a transformed gamma correction mapping table. The original gamma correction mapping table contains entries describing a default luminance value to be provided the display for a magnitude of a video input signal. The gamma correction transform circuit receives entries from the original gamma correction mapping table and from the contrast signal and brightness signal, transforms the entries to transformed luminance values. The transformed luminance values are placed in the transformed gamma correction mapping table. The transformed gamma correction mapping table receives a video signal that provides a pointer to the luminance values to be used to drive the display.